

The Dock & Harbour Authority.

*An Illustrated Monthly Journal devoted to matters
appertaining to the Docks and Harbours of the
United Kingdom and Abroad.*

SERIAL

Nov. 1930 - Oct. 1931
FR 627 v. 11

VOL. XI.—NOVEMBER, 1930 to OCTOBER, 1931

APR 19 1932

THE OFFICES OF "THE DOCK AND HARBOUR AUTHORITY," 19, HARCOURT
STREET, LONDON, W.1., ENGLAND.—1931.



Index to Volume XI

November, 1930 to October, 1931

ARTICLES

A

Algiers, Port of, 353
Amsterdam, Port of, 301, 335

B

Bromborough, New Mersey Dock at, 205

C

Cavalla, Port of, 235
Chesapeake and Ohio Railway, Tidewater
Port Facilities, 73
Chios, Port of, 321
Congestion of Traffic at Ports, 90, 113

G

Ghent, Port of, 2, 49
Great Western Railway Company's South
Wales Ports, 109

H

Haifa Development Works, 99
Halifax, Port of, 35
Hull and the Humber, 93

L

Londonderry, Port of, 229

M

Musel, Port of, 197

N

New Orleans, Port of, 376

P

Piraeus, Harbour of, 135
Poznan, River-Port of, 265

S

Salonika, Port of, 170
Seattle, Port of, Recent Improvements,
147
Seine's New Weir, 166
Southampton, Port of, 69

T

Takoradi Harbour, 43

COMMENTS AND NOTES

A

Aden Port Trust, 22, 45, 94, 112, 158,
168, 254, 273, 315, 334, 368
Air Conditioning, 251
Algiers, Port of, 351
Amsterdam, Port of, 287
A New Grab, 285, 318
Ardrossan Harbour Development, 97
Avonmouth Docks, New Electric Cranes,
19
Ayr Harbour Development, 33

B

Bacon, Captain Wm. C., Death of, 97
Bahia Blanca, New Grain Elevators, 190
Beira, Port of, 162
Belfast Port Affairs, 21, 58
Belfast Successful Year, 129
Bengal, 221
Bengal Harbour Notes, 24, 34, 67
Bombay Harbour Matters, 28, 67
Bombay Port Trust, 30, 38, 161, 246,
280, 300, 345, 358
Book Reviews—
Dredging of Harbours and Rivers, 380
Practical Treatise on Single and Multi-
Stage Centrifugal Pumps, A, 60
Reclamation of Land from the Sea,
The, 380
Bremen, Port of, 115
Bremen's Seagoing Shipping Traffic in
April, 1931, 230
Bremen's Seagoing Shipping Traffic in
December, 1930, 145
Bremen's Seagoing Shipping Traffic in
January, 1931, 175
Bremen's Seagoing Shipping Traffic in
June, 1931, 323
Bremen's Seagoing Shipping Traffic in
May, 1931, 318
British India, Trade Statistics, 39
Bromborough Dock, 193
Buenos Aires, British Empire Trade
Exhibition, 1931, 12
Bute Docks, Cardiff, Important New
Works, 253

C

Caernarvon Harbour Trust, 230
Canada's New Grain Shipping Route, 356
Canadian Audiences hear about the Port
of London, 82
Canadian Lake Port, Opening of New,
39
Canadian Notes, 282, 291
Canal Tolls Dilemma, 60
Cardiff Docks, Importation of Canadian
Cattle, 53
Cavalla, Port of, 225
Ceylon Harbour Affairs, 15, 59, 66
Charleston's Foreign Trade Registers
Gain, 23
Chios, Port of, 319
Chittagong as First-Class Port, 225
Churchill, Manitoba, Harbour Construc-
tion, 287
Clyde's Largest Dredger, 95
Cockenzie and Port Seton Harbour Com-
missioners decide to proceed with
Important Scheme, 65
Congestion of Traffic at Ports, 65
Copenhagen, Port of, 162
Cowes, Electric Grabbing Transporter,
124
Credit Facilities for the Building of New
Tonnage for the Russians, 285

D

De-rating of Dock Warehouses, 255
Dock and Harbour Authorities' Associa-
tion, 185, 213
Dock and Harbour Authorities' Associa-
tion, Annual Meeting, 129
Dockyard Expense Accounts, 1929, 219
Douglas Harbour Works, 121
Dundee Harbour Trustees' Financial
Statement, 319
Dundee, Suggested Reduction in Dock
Charges, 351
Durban, Large Dredger Launched for
Service, 29

E

East Fife Fishery Harbours, Assistance
Offered, 95

F

Far Eastern Ports, Notes, 126, 154, 187,
221, 231, 293, 378
Fleetwood Dock Scheme, 118, 168
French Zone of Morocco, Port Improve-
ments, 162

G

German Ports, Notes, 292
Ghent, Port of, 1
Glasgow "Civic and Empire" Week, 255
Great Western Railway's Cardiff Docks,
220
Grecian Port Matters, 134
Grimsby Docks, Coal Shipping Plant for,
325

H

Haifa, Proposed Harbour at, 97
Harbour Authorities and Income Tax, 284
Harbour Plant Contracts, 21
Helsingfors, Port of, 189
Hudson Bay Railway and Shipping Route
Development, 260
Hull and the Humber, 122, 133, 181, 198,
233, 256, 294a, 332, 366
Hull, Improved Grain Handling Facilities,
157
Humber Bridge Proposals, Alarm, 64
Humber Ports, 12

I

Inland Shipping Vessel, New Type, 30
Institute of Marine Engineers' Annual
Meeting, 26
Institute of Transport, 11, 155, 233
Institution of Civil Engineers, 65
Ipswich, Port of, 33
Irish Harbour Matters, 20, 63, 82, 120,
131, 176, 210, 249, 283, 295, 333, 357,
364
Isle of Man, Harbour Maintenance, 1
Istanbul, Ferry Boats Wanted, 104
Italian Harbour Affairs, 18, 92, 124, 159,
191, 218, 226, 258, 314, 346

COMMENTS AND NOTES—continued

J

Japanese Ports and Foreign Trade, 97
Jugoslavian and Near Eastern Port Matters, 13, 167, 223, 252, 294b, 326, 380
Junior Institution of Engineers, 27

K

Kiel Canal Traffic in April, 1931, 283
Kiel Canal Traffic in August, 373
Kiel Canal Traffic in August, 1930, 28
Kiel Canal Traffic, January to March, 1931, 268
Kiel Canal Traffic in June, 1931, 326

L

Large Modern Bucket Hopper Dredger Launched, 60
Legal Notes, 59, 203
Leith, Port of, 351
Liverpool Dock Engineer's Report, 87
Liverpool Docks Closing, 319
Liverpool's Reply to Southampton, 351
Lloyd's Register Shipbuilding Returns for the Quarter ended 30th June, 1931, 294
Lloyd's Register Shipbuilding Returns for the Quarter ended 30th September, 1930, 22
London, Midland and Scottish Railway Company's Ports, 242
London, Port of, Notes, 123, 155
London, Port of Quick-turn-round After Fog, 89
London, Port of Shipping, 95
London Shipping, 38
London's Docks Spread to the Midlands, 296
London's Shipping Still Increasing, 1

M

Madras Harbour Notes, 32, 55
Madras, Port of, 1
Madras Port Trust, 319
Manchester, Port of, Notes, 29, 72
Manchester Ship Canal Company, 287
Manchester Ship Canal, New Design of Side Tipping Wagon, 261
Manchester Ship Canal Traffic, 65
Manchester to Provide Foreign Animals' Wharf, 38
Marconi Beacon Stations for Uruguay, 345
Marconi International Marine Communication Co., Ltd., 21

A

Algiers, Port of—
Aerial View of Algiers, 352
Casks of Wine being loaded on board ship, 353
Cereals being Transhipped from Truck to Ship, 352
Jetty for Storing Ore, 352
Loading Ore by means of Grab, 352
The Grand Jetty, 352
The Maritime Station, 352
The Port of Algiers in 1830, 352
The Port of Algiers in 1930, 352
Amsterdam, Port of—
Fig. I: Old connection between the Sea and the Harbour, 301
Fig. II: The North Sea Canal, 301
Fig. III: The Rhine Canal, 301
Figs. IV and V, 302
Figs. VI and IX, 303
Fig. VII: View of a part of the Eastern Harbour which is used for general cargo, 304
Fig. VIII: The Suriname Quay, 304
Figs. Xa and Xb, 305
Fig. XI: The Petroleum Dock, 306
Fig. XII: The Timber Dock, 306
Fig. XIII: The Granary, 308
Fig. XIV: The Yard Quay, 306

Mechanical Transport for Dock Use, 259
Melbourne Harbour Trust, 255
Mersey Docks and Harbour Board, 33, 56
Mersey Docks and Harbour Board, By-Laws brought up-to-date, 76
Mersey, Railway Company Plans New Works, 65
Mersey Tunnel Nearing The End, 156
Message from Canada to British Manufacturers and Merchants, 92
Middlesbrough Centenary, 287
Modern Methods of Transport, 62
Monolith Foundations, 277
Montreal, Port of, 34

N

New Caterpillar Mounting, 227
New Dredger that does the work of three, 32
New Orleans, Port of, 23, 72, 250, 281
New Orleans Shows Increases for August, 379
Newport News, Port of, 65
New York, Port of, 16, 61, 88, 103, 160, 182, 194, 247, 254, 269, 289, 324, 372
North-East Coast Notes, 14, 54, 83, 116, 130, 180, 200, 239, 263, 288, 327, 367
Notes from the North, 9, 46, 78, 105, 148, 178, 201, 244, 271, 297, 329, 348, 369
Notes of the Month, 40, 123, 158

P

Paris, River and Sea Port, 354
"Pilcomayo," Trials of the Dredger, 240
Piraeus, Port of, 129
P.L.A. Display at British Empire Trade Exhibition at Buenos Aires, 122
Plymouth Ocean Liner Service, New Tender, 342
Port of London Authority, 27, 224, 270, 284, 294b, 313, 351, 361
Preparing for Busier Times, 152
Preston, New Traffic, 67
Prince Rupert, Port of, 275
Problem of Dock Appliances, 287
Public Works Exhibition, 381
Pyrene Co., Ltd., 381

R

Ramsgate Harbour, 81
Rangoon, New Wharf Opened, 162
Ribble Dock Undertaking, 225
Ribble Navigation, 97
Repair of Concrete Piers and Jetties, 152

Roker Pier, Sunderland: Light and Fog Horn, 118
Rotterdam, Statistics for 1930, 167

S

Salonika, Port of, 162
Scottish Harbour Notes, 17, 41, 66, 119, 145, 216, 241, 281, 316, 341, 374
Ship Canal Traffic, 162
Shipping, Engineering and Machinery Exhibition, 319, 344
Sounding Device for Ships at Sea, 92
South African Harbour Developments, 359
Southampton, Big Drop in Outward Cargo, 65
Southampton Criticised as a Port, 193
Southampton, New Graving Dock, 287, 343
Southampton, New Graving Dock to be built, 33
Southampton, Port of, Topics, 25, 57, 125, 153, 189, 217, 248, 262, 317, 349, 358
Spain to Erect Five New Lighthouses, 33
Stanlow Dock, 129, 156
St. John, New Brunswick, 353
St. John, Port of, New Harbour Works, 255, 319
Sydney Harbour, New Bridge, 257

T

Takoradi, Port of, 33
Tenders Invited, 242
Three Rivers Harbour Commissioners' Report for 1930, 162
Tower Bridge, Interesting Wharf Construction, 85
Trade Notes, 315
Traders Co-ordinating Committee and Lower Dock Charges, 328
"Trinidad," S.S., Launched, 175

V

Vancouver, Large Bridge, 375
Vickers-Armstrongs, Ltd., 381
Vickers Limited, 232

W

Welland Ship Canal opened for Down-bound Traffic, 30
Weser River Shipping during October, 1930, 66
Weser River Shipping in April, 1931, 253
Weser River Shipping in June, 1931, 343
Weser Shipping in November, 1930, 104
Weymouth Harbour, 31

ILLUSTRATIONS

Fig. XVI: 32-ton Crane Loading Marble, 307

Fig. XVII: The Levant Quay, 306

Fig. XVIII: Unloading Cereals from a Sea-going Vessel into River Boats, 308

Fig. XIX: View of the Harbour, 307

Fig. 1, 309

Figs. 2 and 5, 310

Figs. 3 and 4, 311

Figs. 6, 7, 8 and 9, 312

Figs. 10 and 11, 313

Fig. 12, 335

Figs. 13 and 14, 336

Figs. 15, 17 and 18, 337

Figs. 16 and 20, 338

Fig. 19, 339

Figs. 21 and 22, 340

Fig. 23, 341

Avenmouth Docks, New Electric Cranes:

Figs. 1, 2, 3 and 4, 19

Figs. 5 and 6, 20

B

Bahia Blanca, Models of New Grain Elevators, 192

Belfast, Cranes at Albert Quay, 334

Blyth Harbour Entrance. Import Dock on right, 367

Bromborough—

Construction of Dam "A," Photograph taken August 1927, 205

Dam "A" looking South, 2nd December, 1927, 205

Dam "B" looking north from S. Abutment, showing removal of Course 2 Blocks, 1st October, 1930, 207

Deepening the Dock Area, No. 2 Navy excavating Rock near North Dock Wall, 24th April, 1930, 206

Dock Area looking North-East from South-West Corner, showing water lying in deepened Oil Berth, 19th September, 1930, 209

Filling the Dock, looking South-West from the Entrance, showing Inner Gates and Dock Bottom covered, 22nd September, 1930, 209

Filling the Dock. Raising Stop Blocks to allow water to enter the Dock, 22nd September, 1930, 209

General View of Dock Area from South-Eastern Steps, showing progress of Excavating and Deepening, 24th April, 1930, 208

General View of Entrance, looking East, showing erection of Inner Pair of Gates, 20th December, 1929, 211

ILLUSTRATIONS—continued

General View of Inlet Channel for Flooding the Dock, 31st July, 1930, 210
 General View of Southern Area from South-Eastern Steps, showing progress of Dock Excavation and the Oil Quay, 31st July, 1930, 208
 Interesting Panorama, showing the construction of the Three Dock Walls, 208
 Lock Entrance looking East, 19th September, 1930, 204
 North River Embankment looking North from North Entrance Jetty, 31st July, 1930, 206
 Oil Quay and Berth, looking north-west showing Excavation for Wall and Tipping and Filling, 24th April, 1930, 206
 Outer End of Entrance, looking North, showing lightening of clay and removal of piles across entrance, 211
 Removal of Dam "B," Central section, looking south, showing progress on Courses 5, 6 and 7, 6th October, 1930, 207
 Removal of Dam "B," showing Pump and Shute at South end for dealing with water, 6th October, 1930, 205
 Timber incline alongside North Dock Wall under construction, 27th February, 1930, 206
 View of Dock Gates in course of erection from Dam "B," built across Lock Entrance, 204
 Bucket Hopper Dredger "Lord Cochrane," 60
 Burntisland, London and North-Eastern Railway Company's Docks, 312

C

Cardiff, New Swingbridge over Bute West Dock Lock, 253
 Caterpillar Mounting, Figs. 1 and 2, 227
 Cavalla, Port of—
 A General View of the Port of Cavalla, 235
 Another Blockyard, for making Artificial Blocks, 238
 A Steamer loading Tobacco, 238
 Blockyard where Artificial Blocks for the new Port are made, 237
 Discharging Porcelaine at Cavalla for use in Harbour construction, 239
 Excavating in progress on Harbour enlargement scheme, 239
 Harbour enlargements in progress, 236
 Part of the construction which has just been completed, 234
 View of Cavalla showing how the New Harbour will appear when completed, 237
 View of the Harbour construction in progress, 234
 Chios, Port of—
 A Panoramic View of the Port of Chios, 322
 Breakwater in the Port of Chios, 321
 Liners unloading in the Port of Chios, 320
 Lumber Dock at the Port of Chios, 321
 Vessels unloading coal in the Port of Chios, 320, 323
 "City of Delhi," Tyne Improvement Commission, 327
 "Clyde" Patent Capstans in the Workshop, 184

D

Dublin, Unloading tobacco at North Quay extension, 27th June, 1931, 364

E

Electric Grabbing Transporter installed by Stothert and Pitt, Ltd., at Cowes, 124

G

Gas Accumulator Co., Ltd., Light and Fog Horn, 118
 Ghent, Port of—
 Central Wet Dock, East Quay, 5
 Nouveau Bassin: A General View, 2
 Nouveau Bassin: General View, 50
 Nouveau Bassin: Left Bank, 1926, 7
 Nouveau Bassin: Left Bank. Floating Cranes at Work, 8
 Nouveau Bassin: Left Bank, Transshipment of coal, 49
 Nouveau Bassin: Left Bank. Transshipment of coal, 1925, 51

Nouveau Bassin: Pit-props awaiting disposal, 51
 Nouveau Bassin: Right Bank of the North Mole, 7
 Outer Harbour: Fruit being exported, 49
 Outer Harbour: Fruit being loaded for exportation, 5
 Grangemouth, View of the London, Midland and Scottish Railway Company's Docks, 374
 Great Western Railway's Cardiff Docks—
 The 12 new Electric Three-ton Level Luffing Jib Cranes at the Queen Alexandra Dock, Cardiff, 220
 The new twin-screw Tug "The Earl," which has just been added to the equipment of the Cardiff Docks, 220
 Two new movable Coal Shipping Hoists at the Queen Alexandra Dock, 220
 Great Western Railway Company's South Wales Ports—
 Aerial View of Barry Docks, 109
 Cardiff Docks: Discharging Grain direct from Steamer to Shed, 110
 Giant Whalers loading bunkers at Cardiff Docks prior to sailing for the Antarctic, 108
 S.S. "Elmsport" loading general cargo from Newport Docks, 108
 Swansea Docks: One of the spacious Warehouses fully occupied, 111

H

Halifax, Port of—
 A Temporary Railway for the Works has been constructed running along the Foreshore from West to East of the Harbour, 98
 Col. E. C. Phinney, President, Halifax Harbour Commissioners, Halifax, Canada, 36
 Four Vessels of Canadian National Steamships Line at Halifax, Canada, 37
 F. P. Merchant, Harbour Commissioner, Halifax, Canada, 36
 General View of Blockyard in course of preparation, 100
 General View of North Quarry (Three Units), 99
 General View of South Quarry (Two Units), 102
 General View of the Breakwater and Rubble Dyke, 99
 J. L. Hetherington, Harbour Commissioner, Halifax, Canada, 36
 One of the Faces in the North Quarry, 102
 One of the Storm Water Drains through the Reclaimed Area and Blockyard in course of preparation, 101
 Pillar Crane for construction of Main Breakwater, 100
 South Quarry Face looking North, 101
 S.S. "Westernland" (16,610 tons) at berth 20, 35
 The Main Breakwater, taken at the end of last September, when it was 785 metres long, 98
 Hopper Suction Dredger "Rietbok," 95
 Hull, Discharging pit props, King George Dock, 294
 Hull, Electric Cantilever Coal-crane at the London and North-Eastern Railway Company's St. Andrew's Dock, 366
 Hull, Improved Grain Handling Facilities, 157

I

Italian Harbour Affairs—
 Electric Elevators at Spezia, 346, 347
 Exterior View of the completed Maritime Passenger Station at Trieste, 226
 New Cranes installed at Genoa, 347
 New Warehouses in the Free Port of Trieste, 226

J

Jarrewslake, Oil Fuel Installations, 368

K

Karachi, View showing West Wharves equipped with two-ton Babcock and Wilcox, and Stothert and Pitt Electric Cranes, 378

L

Limerick Docks, 295, 333, 365
 Liverpool, Alexandra Dock and Grain Silos, 371
 Liverpool, Gladstone Docks and Graving Dock, 331
 London and North Eastern Railway Company's Bo'ness Dock, 375
 London and North-Eastern Railway's No. 2 Dock, Methil, 316
 Londonderry, Port of—
 Cattle Pens, as reconstructed, 230
 Cattle Pens in course of reconstruction, 228
 Customs Examination Shed for Trans-Atlantic Passengers, 230
 General View of Queen's Quay, 229
 Grain Vessel discharging at Queen's Quay Extension, 228
 Queen's Quay extension and new Shed, 230
 Rock Jetty, showing 35-tons Steam Crane, 229
 London, Midland and Scottish Railway Company's Ports—
 View of Grangemouth Docks, 243

M

Manchester, Aerial view of Deep-water Docks, 297
 Manchester Docks, 369
 Monolith Foundations—
 Fig. 1: Shoe of monolith damaged by contact with boulder, 277
 Fig. 2: Plan of "clover-leaf" pattern monolith, 277
 Fig. 3: Placing monolith shoe in position prior to sinking, 277
 Fig. 4: Shuttering in position on base of monolith, 277
 Fig. 5: Plan of two adjacent monoliths at Tilbury showing intermediate space filled with concrete, 278
 Fig. 6: Monoliths deflected during sinking, 278
 Fig. 7: Diagram of monoliths sunk in sequence in soft ground, 278
 Fig. 8: Sectional plan and elevation of monoliths forming quay wall at Vizagapatnam, 279
 Fig. 9: Sectional elevator and plan of monolith wells being excavated by means of grabs, 279
 Fig. 10: Sectional elevation of monolith excavated dry showing at right a brow of water-bearing sand, 280
 Motor Car Lifting Appliances, 299
 M.S.C. Either Side Tipping Wagon, 261
 Musel, Port of—
 General View of the Port, 197
 No. 1: Movable Hoist, which handles 2,200 tons daily, 199
 No. 2: Hoist which handles 2,500 tons daily, 197
 No. 3: Installation for Coal Shipping, which has a working capacity of 1,000 tons per hour, 196
 No. 4: Cranes for lifting 11-ton wagons, 196
 No. 5: A 45-ton Crane. It is lifting a 20-ton wagon, 199
 No. 6: Three-ton Electric Cranes, 197

N

New Barns Railway Sidings, between No. 8 and No. 9 Docks, Manchester, 329
 New Orleans, Port of—
 Federal Barge Tow, 376
 Navigation Canal and Goethals Lock, 377
 The Anchorage, 377
 Unloading Aluminium Ore at Stuyvesant Docks, 376
 Newport News (Virginia), Port of—
 Grain Elevator, 77
 Making and storing Concrete Piles for use in construction of New Coal Pier, 75
 Merchandise Piers, 74
 New Coal Pier under construction, 75
 Piers Nos. 1, 2, 3 and 4, 73
 Present Chesapeake and Ohio Railway Coal Pier, 74
 Tobacco and Merchandise Warehouses, 77
 Type of Coal Car Dumper under construction, 73

ILLUSTRATIONS—continued

O

"Octo-Grab," 285

P

Paris, River and Sea Port, 354
 Piraeus, Port of—
 Another View of the Blockyard, 141, 143
 Construction of Breakwater in St. George's Bay, 137, 139
 Covered Space between two Warehouses, 140
 Entrance to the Port, 139
 General View of the Port, 137
 Inner Harbour, showing Coal Lighters, 143
 Interior View of Warehouses, 136
 New Quay at the Central Harbour, 142
 Outer Harbour, 142
 Shutes outside Warehouses, which are used for shifting bags from the second storey, 136
 Two-ton Crane, 138
 Two-ton Electric Cranes in the Harbour, 138
 View of Blockyard, showing blocks which have already been constructed, 141
 Warehouses, 140
 Poznan, River-Port of—
 Dredger at work in the river, 266
 Electrical Full-Portal Crane of 39-cwt. capacity, 266
 Electrical Semi-Portal Crane of 29½-cwt. capacity, 268
 General View of the Loading Quay, 265
 One of the storehouses and a dredger at work in the river, 264
 Transhipment of coal from Railway Cars into Boats by means of Troughs, 267
 Transhipment of corn from Barges to Railway Cars, 267
 Typical River Boats, 264
 Prince Rupert, Port of—
 Aerial View of Prince Rupert, 276
 Canadian Government Elevator, 274
 Cold Storage Plant, 275
 Dry Dock and Shipbuilding Plant, 274
 Grain Elevator, which has a storage capacity of 1,250,000 bushels, 276
 Japanese Freighters in Harbour, 275

R

Ramsgate Harbour, 81
 Repair to Concrete Piers and Jetties, 152

S

Salonika, Port of—
 Cattle Transit Facilities, 173
 Free Zone Administration Building, 170
 General View of the Greek Free Zone, 171

General View of the Greek Free Zone from the Breakwater, 174
 Greek liners which trade with the Greek Islands lying alongside the Quay on which is situated the Harbour Master's Office, 174
 Greek Steamers lying alongside the Dock used for Coastwise Trade, 172
 Interior View of one of the Warehouses in the Salonika Free Zone, 174
 Liners of the Lloyd Triestino in the main dock of the Greek Free Zone, 175
 The Main Dock of the Greek Free Zone, 169
 Unloading a 20-ton Weight from an American ship, 172
 15-ton Steam Crane, 169
 Seattle, Port of—
 Interior View of New Transit Shed—Ground Floor, 149
 Lenora Street Pier and Viaduct leading to turning area, 149
 New Transit Sheds on Pier 40, nearly completed, 146
 Passenger Terminal Building with ship in South Berth, 146

Seine, The—

Figs. 1 and 2, 164
 Figs. 4 and 5, 163
 Figs. 3, 6 and 7, 165
 Figs. 8 and 9, 166

"Sheila of Penryn," 281

"Sirocco," Latest design of Air-conditioning Plant, 251

South African Harbour Developments—
 An every-day scene in Durban's Busy Dockland, 361
 Durban's Grain Elevator, the largest in South Africa, has a capacity of 42,000 tons, 360
 East London, 359
 Giant Electric Cranes on the Wharf at Durban, 359
 Graving Dock at Congella, Durban, one of the world's largest structures of its kind, 360
 Jetty at Port Elizabeth, 361
 Large Steamer heading out from the shadow of Table Mountain, 359
 One of the Table Bay Harbour Tugs nosing the bows of the "Windsor Castle" away from the Wharf, 359

Southampton—

View of Dock Extension Work, 318
 Work on the site of the new Graving Dock, 217
 3-ft. 6-in. by 2-ft. 6-in. Double-faced Dryshaft-type Dock Culvert Sluices, 343
 9-ft. by 6-ft. Double-faced Dryshaft-type Dock Culvert Sluices, 343

Southampton, Docks Extension Work—
 A chain of Cranes on the Dock Extension removing the "Spoil" from the Monolith Wall, 68

An Aerial View of part of the "Bank" on which the Monolith Walls can clearly be seen, 69

A Panorama of the whole of the Dock Extension, showing progress of the work and the Lake to be filled, 70

Barges loaded with "Spoil" which is being sucked up by the "Foremost Chief" and deposited on the area to be reclaimed by means of pipe lines, 68

Driving Piles for the first Shed on part of the Dock Extension, 69

Some of the Monoliths which have already been sunk to the required depths and have been sealed preparatory to finishing off, 71

The "Foremost Chief" at work, sucking up "Spoil" from barges alongside and forcing it through a line of pipes, to be deposited on the area to be reclaimed, 71

Work on the site of the new Graving Dock, 217

Spiros Air Compressor, 315

Sydney Harbour Bridge—

View looking South-East, with Cradle being lowered from hangar, 257

View looking West, showing progress of main span Deck erection, 257

Stanlow, New Oil Dock, 156

Sussak Harbour, 13

T

Takoradi Harbour—

Loading Cocoa into Lighters at West Lighter Wharf, 44

Loading Manganese, 42

Vessels at Main Wharves, 44

Vessels at Moorings. Lighter Moorings in foreground, 43

Vessels discharging at Main Wharves, 42

View of Wharves from Signal Station, 43

Tower Bridge Wharf Construction—

View of the New Reinforced Concrete Wharf, 86

View showing the Roadway on the Wharf, 86

View showing the three 1½-ton Cranes installed by Stothert and Pitt, Ltd., 85

View of the Wharf, 85

Tyne Improvement Commissioners No. 5 Whitehill Point Staith, Shipping Coal by Anti-Breaker, 288

V

Vickers Ltd., A section of the Showroom, 232

W

Weymouth Harbour, 31

SUPPLEMENTS

Algiers, Port of—October, 1931
 Amsterdam, Port of—August, 1931
 Cavalla, Port of—June, 1931
 Chios, Port of—September, 1931

Ghent, Port of—November, 1930
 Gijon-y-Musel, Port of—May, 1931
 Halifax Harbour—February, 1931
 Newport News, Port of—January, 1931

Piraeus, Port of—March, 1931
 Poznan, Port of—July, 1931
 Salonika, Port of—April, 1931
 Takoradi Harbour—December, 1930